



PATENT
Attorney Docket No. 99078X206650

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

DARSILLO et al.

Art Unit: 1773

Application No. 09/670,118

Examiner: K. Bernatz

Filed: September 26, 2000

For: RECORDING MEDIUM

**PENDING CLAIMS AFTER AMENDMENTS
MADE IN RESPONSE TO OFFICE ACTION DATED APRIL 9, 2002**

1. A recording medium comprising a substrate having a glossy coating thereon, the glossy coating comprising alumina particles and a binder, wherein the alumina particles are aggregates of primary particles and have a surface area of about 30-80 m²/g, and the glossy coating has a 75° specular gloss of at least about 15%.

2. The recording medium of claim 1, wherein the substrate comprises a polymer or cellulose paper.

3. The recording medium of claim 1, wherein the substrate comprises poly(ethylene terephthalate).

4. The recording medium of claim 1, wherein the alumina particles are fumed alumina particles.

5. The recording medium of claim 1, wherein the aggregates have a mean diameter of less than about 1 μm.

7. The recording medium of claim 1, wherein the pigment to binder ratio is at least about 2:1 by weight.

27. A recording medium prepared by a method comprising
(a) providing a substrate,

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(b) coating the substrate with a coating composition comprising alumina particles and a binder, wherein the alumina particles are aggregates of primary particles, and the solids content of the alumina in the composition is at least about 10 wt.%, and
(c) drying the coated substrate to provide the recording medium.

28. The recording medium of claim 27, wherein the coating composition has a solids content of alumina in the composition of at least about 20 wt.%.

29. The recording medium of claim 5, wherein the aggregates have a mean diameter of about 80-300 nm.

30. The recording medium of claim 29, wherein the aggregates have a mean diameter of about 100-200 nm.

33. The recording medium of claim 1, wherein the aggregates have a surface area of about 40-60 m²/g.

44. The recording medium of claim 7, wherein the alumina to binder ratio is at least about 7:1.

45. The recording medium of claim 44, wherein the alumina to binder ratio is at least about 9:1.

46. The recording medium of claim 1, wherein the glossy coating has a 75° specular gloss of at least about 65%.

47. The recording medium of claim 1, wherein the glossy coating has a total mercury intrusion volume of at least about 0.3 ml/g.

48. The recording medium of claim 47, wherein the glossy coating has a total mercury intrusion volume of at least about 0.8 ml/g.

49. The recording medium of claim 4, wherein the aggregates have a mean diameter of less than about 1 µm.

50. The recording medium of claim 49, wherein the aggregates have a mean diameter of about 80-300 nm.

51. The recording medium of claim 50, wherein the aggregates have a mean diameter of about 100-200 nm.

52. The recording medium of claim 4, wherein the alumina to binder ratio is at least about 2:1 by weight.

53. The recording medium of claim 52, wherein the alumina to binder ratio is at least about 9:1.

54. The recording medium of claim 4, wherein the aggregates have a surface area of about 40-60 m²/g.

55. The recording medium of claim 4, wherein the glossy coating has a 75° specular gloss of at least about 65%.